



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/516,934

12/14/2004

Philippe Michel

259783US6PCT

8637

22850

7590

12/12/2006

C. IRVIN MCCLELLAND
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

CULBRETH, ERIC D

ART UNIT

PAPER NUMBER

3616

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/516,934	Applicant(s) MICHEL ET AL.	
	Examiner Eric Culbreth	Art Unit 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 16-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/14/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because of the following informalities. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

a. Generally, the invention structure is not understood from the figures (i.e., part 42 is shown in Figure 2, but where is it in Figure 1? Similarly, it is not clear where part 11 is in Figure 1). The structure of plane 43 is not clear from the drawings.

b. Reference numerals 43 and 44 are not consistent (43 refers to a plane (page 7, third paragraph) and a junction (page 8, line 4 from the bottom); 44 refers a plane (page 7, fourth paragraph) and a junction (page 8, line 3 from the bottom)).

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the indexing bores on the dropped edge (claim 25), means determining a stable position (claim 26), the marking and indexing of the dropped edge (claim 29), and the elastic elements (claim 30) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:
 - a. On page 2, third paragraph, line 3 and line 4, in each line “a appreciably” should be “an appreciably”.
 - b. On page 8, line 4 from the end of the page, “work the junction” is not understood.

Appropriate correction is required.

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: There is no support in the specification for claim 30 (the elastic elements).

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 16-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which

Art Unit: 3616

was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The symbols in the equation on page 8 are not defined (i.e., what are the various forces F ; what is the "E" symbol on the right side of the equation). Hence, it is impossible to apply the equation.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 19, 25-26 and 28-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. In claim 26, it is not clear what part of the invention is the "means determining a stable position of the vehicle".

b. Claim 29 is a method claim dependent on an article claim; hence the statutory class of invention for claims 29-30 is not clear (i.e., method or article?).

In claim 19, line 1 "claims" should be "claim".

c. In claim 25, it is not clear what is meant by "indexing bores".

d. Claim 28 would not appear to be accurate (there is no flange connected to bore 4 in an uninterrupted manner and oriented toward the rear coupling).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 16-30 as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato US005607177A in view of Kurosu et al US005516129A (both cited by applicant).

Kato discloses a front suspension arm of a motor vehicle (see Figure 1) comprising three bores or openings at 10a, 10b and 10c corresponding to a coupling to a wheel support at 10c, a front coupling at 10a and rear coupling at 10b, the front and rear coupling forming a hinge between the arm and a vehicle. However, Kato's arm 10 is not formed of a single sheet metal part (the openings at 10a and 10b have

perpendicular axes, but are separate parts and attached to a single sheet metal part in, say, Figure 5(F). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kato to include the entire arm being formed of a single sheet metal part (i.e., the have bores instead of collars forming the holes) as taught by Kurosu et al at holes 1-1 and 2-1 in order to increase rigidity while reducing weight (Kurosu et al, column 1, line 67 – column 2, line 1)(claim 16). As best seen in, say, Figure 13, the front and rear coupling of the hinge are on the same longitudinal plane (claim 17), and as best seen in Figure 9(A), the center of Kato's front coupling 10a is behind a transverse plane passing through the center of coupling on the arm for the wheel support at 10c (claim 18). The arm of Kato's Figure 5E would be a single stamped sheet metal part presenting a flat center part (inasmuch as applicant's, which has a groove through the center part), a first side connecting the coupling of the arm to the wheel support and the rear coupling of the hinge, a second side connecting the wheel coupling and the front hinge, and a third side connecting the front and rear couplings of the hinge (claim 19). As functionally recited, a vertical joining plane connects the second side to a periphery of bore corresponding to the front coupling (i.e., along the bore's vertical wall connecting to the second side)(claim 20), and a horizontal plane connects the third side to a periphery of the bore corresponding to the front hinge (i.e., the flat wall of the third side adjacent the bore) (claim 21). A vertical wall is on the first side (i.e., one of the vertical walls in Figure 5(E))(claim 22), and in the combination Kurosu et al teaches a second wall 2 in Figure 3 that is a raised edge that gradually varies in height, and this would be second side connecting the wheel coupling at 1-1 in

Art Unit: 3616

Kurosu et al with the front hinge at 2-1 (claim 23). The raised edge in Figure 3 of the Kurosu et al in the combination bears a dropped edge near hole 1-1, the dropped edge being at a right angle and towards the outside of the arm (claim 24). Regarding claims 25-26, providing indexing bores would be a matter of design choice as best understood, as it is well known in the art to mark parts for assembly, and in view of the recitation of the indefinite recitation of means for determining a stable position of the vehicle on the dropped edge, the combination meets the positive understood limitations of the claim as functionally recited (i.e., the dropped edge tells someone installing the arm what orientation the arm should have on the vehicle, making it a means for determining a stable position). Kato teaches a groove 21e in Figure 5(E) along the flat center part of the arm (claim 27), and the flange of Kurosu et al bearing hole 2-1 in Figure 3 would make an uninterrupted connection of the bore corresponding to the front coupling and would be oriented toward the rear of the hinge in the combination (as the opening for the front hinge in Kato is oriented toward the rear) (claim 28). As best understood in claims 29-30, the arm of the combination would be made by the steps listed in claim 29, and would include the elastic elements (i.e., see Figure 5 of Kurosu et al in the combination); the step of marking and indexing the dropped edge is well known in the art as an obvious matter of design choice (it is a matter of choice to put marks and indexes on different parts of structures).

Conclusion

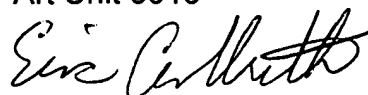
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tunzini discloses a single piece arm.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Culbreth whose telephone number is 571/272-6668. The examiner can normally be reached on Monday-Thursday, 9:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571/272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eric Culbreth
Primary Examiner
Art Unit 3616



ec